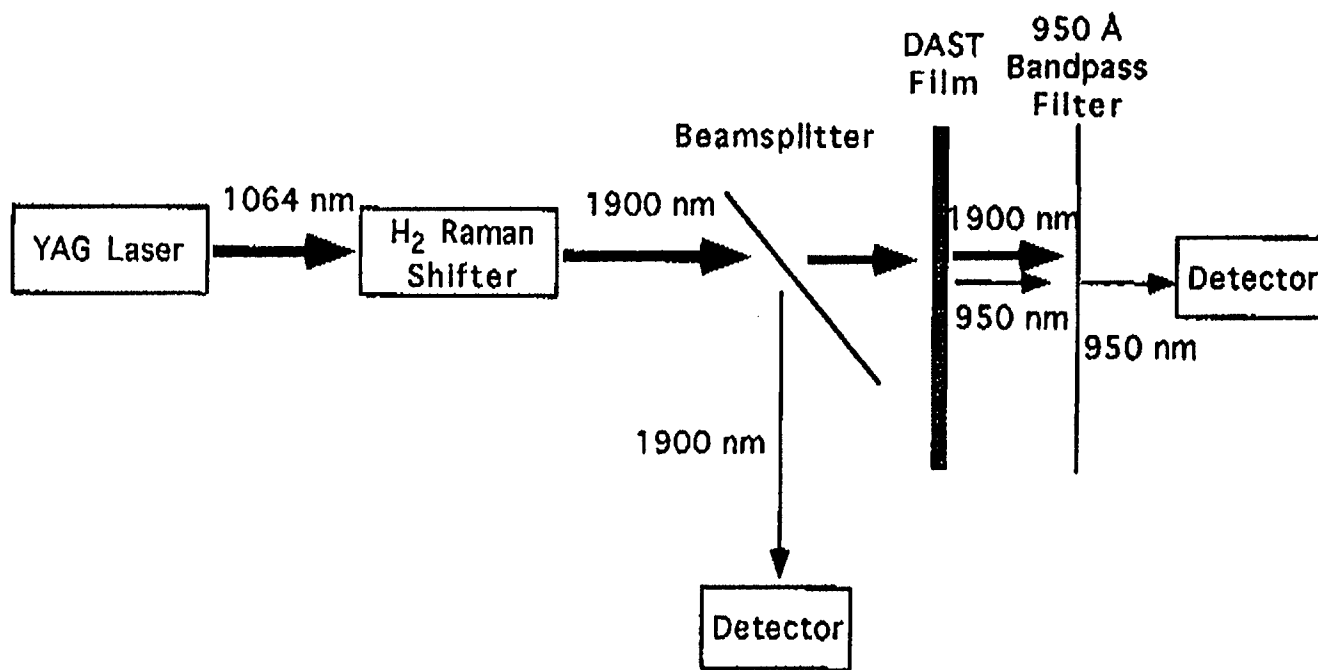


REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
<small>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small>				
1. AGENCY USE ONLY (Leave Blank)		2. REPORT DATE 12/12/1994		3. REPORT TYPE AND DATES COVERED interim 01 Nov-01 Dec 1994
4. TITLE AND SUBTITLE A New Growth Technology for Highly Non-Linear Optical Quality Organic Films: Organic Vapor Phase Deposition			5. FUNDING NUMBERS N00014-94-C-0168	
6. AUTHOR(S) Dr. V.S. Ban				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) PD-LD, Inc. 209 Wall Street Princeton, NJ 08540			8. PERFORMING ORGANIZATION REPORT NUMBER 0004	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Dr. John Pazik, Office of Naval Res. code 251 ALMW Ballston Tower One- 800 N. Quincy St. Arlington VA 22217-5660			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION/AVAILABILITY STATEMENT This document has been approved for public release and sale; its distribution is unlimited.			12b. DISTRIBUTION CODE DTIC SELECTED DEC 28 1994	
13. ABSTRACT (Maximum 200 words) NMR spectroscopy identified the main impurity in DAST films grown by OVPD method. The impurity is a trimethylated compound described in last month report. Thus our films consist of over 90 % DAST and some 5 to 10 % of the above impurity. An apparatus for measuring second harmonic generation properties of OVPD DAST films has been constructed and described. We expect to do quantitative measurements this month. We continue the optimization of growth conditions of the OVPD method. This month we shall grow from tosylate starved atmosphere and study effects of substrate nature on optical properties of grown films.				
14. SUBJECT TERMS non-linear materials DAST Organic Vapor Phase Deposition			15. NUMBER OF PAGES	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT		20. LIMITATION OF ABSTRACT

19941219 077



Apparatus for measurement SHG activity of DAST films grown by the OVPD method